

## HEPATITIS B AND HEMOPHILUS IMMUNIZATION PROGRAMS (ALASKA)

Indian Health Service Preventive Health	FY 1999 <u>Enacted</u>	FY 2000 Final <u>Appropriation</u>	FY 2001 <u>Estimate</u>	Increase Or <u>Decrease</u>
<u>Hepatitis &amp; Heophilusm</u>				
<u>Influenza Immunization Program (Alaska)</u>				
A. Budget Authority	\$1,367,000	\$1,402,000	\$1,457,000	+\$55,000
B. <u>Services Provided</u>				
<u>IHS Operated:</u>				
* # hepatitis patients given clinical care	2,500	2,900	2,900	0
# chronic carriers Surveyed.....	1,482	1,492	1,492	0
# patients immunized: Hepatitis A/B.....	6,900	8,400	8,400	0
** Hemophilus Influenza (Hib)...	900	1,000	1,000	0
# Hepatitis C patients followed	650	800	800	0
Evaluate need for				
Hepatitis Booster Doses:				
Infants/Children	1,482	1,982	1,982	0
Adults.....	2,800	3,000	3,000	0
Immunization Records Audited:	2,000	3,000	3,000	0
***Purchase of vac.(\$):				
PedvaxHIB.....	\$0	\$0	\$0	\$0
Hepatitis A (adult).	\$50,000	\$50,000	\$50,000	\$0
Hepatitis B (adult).	\$50,000	\$50,000	\$50,000	\$0

\*These patients have diagnostic exams and procedures performed by hepatitis program staff at rural field clinics and at Alaska Native Medical Center.

\*\*These figures represent patients immunized in hepatitis A/B studies, and adult vaccination with program-purchased vaccine. Changes in figures represent hepatitis A vaccination of adults with chronic hepatitis C infection.

\*\*\*These figures represent the purchase of PedvaxHIB in FY 1997 (see narrative below), and a renewed purchase of adult Hepatitis A and B vaccines agreed upon in the Alaska compacting tribes funding agreement with IHS. Hepatitis B vaccine is offered to any susceptible Alaska Native adult. Hepatitis A vaccine is offered to non-immune adults in high-risk groups determined by the Advisory Committee on Immunization Practice (ACIP).

### PURPOSE AND METHOD OF OPERATION

The Viral Hepatitis Program (Hepatitis B Program) and the Immunization (Hib) Program are distinct programs of the Alaska Native Tribal Health Consortium (ANTHC).

Tribal Contracts:

Bristol Bay Health Corp.	133,000
Yukon Kuskokwim Health Corp.	228,500

Tribal Shares: The 2001 budget is 100 percent tribal shares in the Alaska Tribal Health Compact, and restricted by Annual Funding Agreement to support the activities and personnel described below:

Hib Immunization	295,000
Hepatitis	840,400
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TOTAL	1,497,000

Viral Hepatitis Program

The objective of the Viral Hepatitis Program is to deliver comprehensive hepatitis A, B and C control services to Alaska Natives. The Hepatitis B Program began in 1982 to stop the spread of hepatitis B in Alaska Natives by mass immunization, and to prevent premature death in chronically infected persons by early liver cancer detection. Since 1990 the Program has expanded to include control of hepatitis A infection, detection and control of hepatitis C infection, and identification and research into non-A, B, C, hepatitis infection.

Current activities of the Viral Hepatitis Program include:

- provision of hepatitis B vaccine for susceptible Alaska Native adults, and new Alaska IHS employees,
- continuation of four long-term immunogenicity and efficacy studies to determine when booster hepatitis B vaccine doses are planned,
- surveillance of 1,500 chronic hepatitis B carriers twice-yearly for early liver cancer detection,
- studies on the long-term immunogenicity of hepatitis A vaccine in infants and children and adults,
- Hepatitis A vaccination of high risks Alaska Native adults including those with chronic liver disease and injectable drug users.
- provision of hepatitis A vaccine to 2 to 18 year old children using vaccine provided by the State of Alaska,
- development and administration of a Statewide tracking system to track persons chronically infected with hepatitis C,

- development of anti-viral strategies for hepatitis C infections, including initiating study on 500 adults chronically infected with hepatitis C to determine natural history and develop preventive and treatment strategies including the use of anti-viral medications,
- collaboration with other agencies to identify additional hepatitis viruses and develop prevention and treatment strategies,
- provision of hepatitis field clinics in rural areas, and education to health providers and patients,
- studies using new antiviral drugs to treat hepatitis C, and
- Development and implementation of a strategy to screen persons at high risk for exposure to hepatitis C who had a history of receiving blood products or have used injectable drugs in the past.

### **Hib Immunization Program**

The objective of the Haemophilus influenza Type B (Hib) Immunization Program is to provide resources, advocacy, training, immunization tracking and coordination of immunization delivery services among Alaska Native tribal programs in order to achieve and maintain high levels of on-time immunization, thus eliminating Hib and other vaccine-preventable diseases in Alaska Natives.

Before the advent of Hib vaccines in the late 1980s, Alaska Natives had record rates of Hib meningitis, 6 - 10 times those of other U.S. populations, with a preponderance of disease in young infants. The Program was implemented to prevent Hib disease in Alaska Native infants, initially with passive immunization, and following licensure of infant Hib vaccines, using Hib conjugate vaccines. In 1992 the Program objective was expanded include achieving high on-time immunization levels for all recommended childhood vaccines, at 2, 4, 6, 12, and 24 months of age.

The current strategies utilized by the Program are:

Assessment. The Program conducts regular immunization audits with tribal contractors to monitor progress toward achieving immunization goals and identify problems in vaccine delivery.

Training and Feedback. The Program provides annual training for regional immunization coordinators; periodic vaccine updates to clinical directors, pharmacists, and health providers; and regular training of Community Health Aides. The Program develops and updates vaccine-training materials for Community Health Aides and other health providers, and disseminates national and State training materials.

Computerized Immunization Registry. The Program served as principal consultant to revise the current computerized IHS immunization software package, which was released IHS-wide in December 1999. In December we trained regional coordinators on the use of the software package, and are conducting e-mail, phone, and on-site consultations and training both in Alaska and IHS-

wide. The Program was asked to serve as IHS immunization consultant for the IHS to the Government Computerized Patient Record (GCPR) project.

Advocacy/Coordination with the State. The Program meets regularly with the State of Alaska Immunization Program to advocate for vaccine policies that optimize disease prevention in Alaska Natives. We have started promotion of the new pneumococcal conjugate vaccine for infants expected to be licensed in the February 2000 with the State Immunization Program and Alaska Native health providers. We collaborate with the State Division of Epidemiology in disease outbreak control (e.g., measles in 1998).

Vaccine Promotion. The Program develops vaccine promotional materials and coordinates regional efforts to promote timely vaccination, and participates in the States' Immunization Initiative.

Vaccine Purchase. Periodically, the Program purchases vaccines not supplied by the State of Alaska Immunization Program (e.g., MMR for 2<sup>nd</sup> dose in 1992-1996, Influenza to cover shortfall of State vaccine), and PedvaxHIB in 1996-7 to replace the State-provided vaccine shown to be less effective in young Alaska Native infants).

Respiratory syncytial virus (RSV) Prophylaxis Project. The RSV surveillance study demonstrated the highest reported RSV hospitalization in an Alaska Native population. The program is monitoring the impact of using RSV monoclonal antibody to prevent RSV hospitalizations in high-risk infants. Also, the Program is collaborating with the Arctic Investigation Program (AIP-CDC), YK Health Corporation and the University of Washington in a cohort study evaluating the effect of early RSV hospitalization on development of chronic lung disease and asthma in childhood.

Disease Surveillance and Analysis. The Program analysis of AIP-CDC surveillance data on vaccine-preventable diseases has enabled us to detect and respond to changes in disease patterns. Through AIP-CDC we have had disease surveillance for Strep pneumonia, and have developed projects to monitor the impact of infant vaccination on disease and nasopharyngeal carriage.

## **ACCOMPLISHMENTS**

The Viral Hepatitis Program has been recognized as the national and international leader in the prevention and control of viral hepatitis, and communicable disease experts worldwide are monitoring its performance. Since its beginnings, in 1982, the Viral Hepatitis Program has reached all the high-risk villages in Alaska and has the potential for eradicating hepatitis B. By 1988 the majority of Alaska Natives were immunized against hepatitis B, if not previously infected. More than 96 percent of Alaska Native newborns receive a dose of hepatitis B vaccine before hospital discharge. The annual incidence of acute symptomatic hepatitis B infection has decreased from 215 per 100,000 prior to 1982, to 5 per 100,000. The 1-year case-fatality rate for primary liver cancer has decreased from 100 percent to 50 percent.

Since 1989 the Program has conducted studies on the immunogenicity, safety and efficacy of hepatitis A vaccine in infants and adults. In 1993 the program, in collaboration with the State of Alaska and four regional Native health corporations, conducted a project that demonstrated that one dose of hepatitis A vaccine could halt a large outbreak of hepatitis A. The Program is now conducting studies of the effectiveness of hepatitis A vaccine in infants. Other recent accomplishments include initiation of studies on hepatitis B boosting and long-term immunogenicity of hepatitis A vaccines, and the development of a cancer detection program for persons chronically infected with hepatitis C. The latter has involved development of a registry of persons with hepatitis C, currently approaching 700 Alaska Natives, and the development of a plan to screen Alaska Natives at high risk for hepatitis C (persons who received blood transfusions or had cardiac surgery prior to 1992).

The Hib Immunization program conducts or reviews audits in 12 Alaska Native regions which have documented an increase in 2-year old immunization rates in Alaska Natives from 49-73 percent in 1990, to 76-98 percent in 1998-9, with more than 90 percent fully immunized against Hib disease. Through expanded immunization tracking in Anchorage the 2-year old immunization rate in Anchorage Alaska Natives increased from 81 percent in 1996 to 89 percent in 1999, while the age-appropriate immunization rate in 3-27 month olds increased from 76 percent to 89 percent. The Program provided the clinical development, testing and training of the new IHS Immunization software package for the computerized Registration and Patient Management System (RPMS). This package, which provides expanded opportunities for immunization tracking and recall, was completed and released IHS-wide in December 1999.

The Program has successfully collaborated with the State in a immunization initiative resulting in a state-wide increase in 2-year-old immunization rates according to the National Immunization Survey from 69 percent in 1996 to 81 percent in 1998 (the Alaska Native immunization rate was 87 percent in 1998). The Program assisted with a recently finalized American Academy of Pediatrics (AAP) statement on Immunizations for American Indians and Alaska Natives.

An emphasis on adult immunizations has resulted in influenza vaccination of >60 percent and pneumococcal vaccination of >80 of elders in at least 1 region.

Although Hib disease has decreased over 90 percent in Alaska Natives, the active Hib surveillance at AIP-CDC picked up an increase in Hib cases in 1996 following a change in the State-purchased Hib vaccine. The Program collaborated with CDC in studies that justified to the State of Alaska the need for a sequential Hib vaccination schedule using PedvaxHib for the first dose. Since instituting this schedule the number of Hib infections has decreased with most cases occurring in under-immunized infants.

In 1999, the Program published the results of a 3-year RSV study, and developed a protocol to evaluate the effect of early RSV hospitalization on development of childhood lung disease and asthma.

#### **PERFORMANCE PLAN**

The following performance indicators are included in the IHS FY 2001 Annual Performance Plan and are primarily dependent upon the activities funded within this budget line item for achievement. These indicators are sentinel indicators representative of some of the more significant health problems affecting AI/AN.

Indicator 20: Reduce the incidence of preventable diseases by increasing the proportion of AI/AN children who have completed all recommended immunizations for ages 0-27 months (as recommended by Advisory Committee on Immunization Practices) during FY 2001 by 2 percent over the FY 2000 rate.

Following are the funding levels for the last 5 fiscal years:

<u>Year</u>	<u>Funding</u>	<u>FTE</u>
1996	\$1,328,000	0
1997	\$1,328,000	0
1998	\$1,328,000	0
1999	\$1,367,000	0
2000	\$1,402,000	0

**RATIONALE FOR BUDGET REQUEST**

**Total Request** -- The request of \$1,457,000 is an increase of \$55,000 over the FY 2000 Appropriation of \$1,402,000. The increase includes the following:

Current Services - Built-in Increases: +\$53,000

The request \$53,000 for personnel related costs will partially fund the built-in increases associated with on-going operations. Included is the FY 2001 pay raise and within grade increases.

The IHS patient population continues to receive less access to health care than the general U.S. population. Maintaining the current I/T/U health system is necessary in eliminating disparities in health status between AI/ANs and the rest of the U.S. population.

Health Disparities - +\$2,000

The requested funds will provide additional support to the Viral Hepatitis and HiB Immunization Programs.